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Squires

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(54) **METHOD AND APPARATUS FOR SIDEWARDS FLYING BED**

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(57) **ABSTRACT**

Granular matter placed in a vertical cylinder rotated back and forth between limiting angles creates a sidewards flying bed. A spoke is connected at one between a vertical drive shaft rotating the cylinder and a first hinge. A drive rod is connected between the first hinge and a second hinge on a rotating flywheel. Rotation of the flywheel causes the drive shaft to rotate through an angle varying back and forth between limiting angles. The cylinder's speed of rotation varies. During most of the time centrifugal forces greater than gravity act upon the granular material, causing the material to form a layer on the inner wall of the cylinder. In at least a portion of the recurring time intervals the acceleration and deceleration produce tangential forces greater than the centrifugal forces acting upon the layer, causing the granular material to fly sidewards in a direction tangential to the cylinder's circumference.

20 Claims, 5 Drawing Sheets